

Claims

- (previously presented) A germline-competent black B6 ES cell line from C57BL/6 mouse strain consisting of IC1.
- 2. (previously presented) A germline-competent white albino B6 ES cell line from C57BL/6J-Tyr ^{c-23} C57BL/6J-Tyr ^{c-2J} mouse strain consisting of IAC1.
- 3. (currently amended) A method of generating a transgenic mouse for producing genetically modified C57 mice, wherein said transgenic mouse is produced by introducing C57 ES cells with marker genes into blastocysts from the same color strain, and transplanting said blastocysts into a pseudopregnant animal to produce the transgenic mouse which can not be seen by coat color introducing an IC1 ES cell into a C57BL/6 blastocyst, wherein said method comprises: introducing a transgene construct into IC1, wherein the transgene construct is stably integrated in the genome, injecting IC1 comprising the transgene construct into a C57BL/6 blastocyst, wherein said blastocyst is transplanted into a pseudopregnant mouse, and allowing said blastocyst to develop into a chimeric transgenic mouse.
- 4. (cancelled)
- 5. (currently amended) A method of introducing albino B6 ES cells into black B6 blastocysts to produce a white into black combination, said method comprising the steps of:

- a) introducing genetic modification in albino B6 ES cells to produce modified ES cells,
 - b) introducing said modified B6 ES cells into blastocysts from black C57 strain and transplanting said blastocysts into a pseudopregnant mouse,
 e) allowing said blastocyst to develop into transgenic mice_identified by coat color, and d) breeding said transgenic mice to produce offspring. introducing and IAC1 ES cell into a C57BL/6 blastocyst, wherein said method comprises:
 introducing a transgene construct into IC1, wherein the transgene construct is stably integrated in the genome, injecting IC1 comprising the transgene construct into a C57BL/6 blastocyst, wherein said blastocyst is transplanted into a pseudopregnant mouse, and allowing said blastocyst to develop into a chimeric transgenic mouse.
 - 6. (currently amended) The method of claim 3 wherein the <u>chimeric</u>
 transgenic mouse is identified by PCR and Southern Blot, <u>said transgenic</u>
 mouse being not identifiable by coat color when C57 ES cells are injected
 into C57 blastocysts of the same color strain.
 - 7. (cancelled)
 - 8. (cancelled).
 - 9. (cancelled)
 - 10. (cancelled)
 - 11. (cancelled)